Appendix D. CREDENTIALS ADMINISTRATION IN THE CVISN MODEL DEPLOYMENT STATES

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CREDENTIALS ADMINISTRATION IN THE CVISN MODEL DEPLOYMENT STATES

Several of the Commercial Vehicle Information Systems and Networks (CVISN) Model Deployment States provided information about how they are implementing credentials administration functions (see subsequent sections in this chapter). This information is included below as written by the states without further editing. All information is as of July 2000 unless otherwise noted. It is subject to change and is provided as background only.

D.1 California

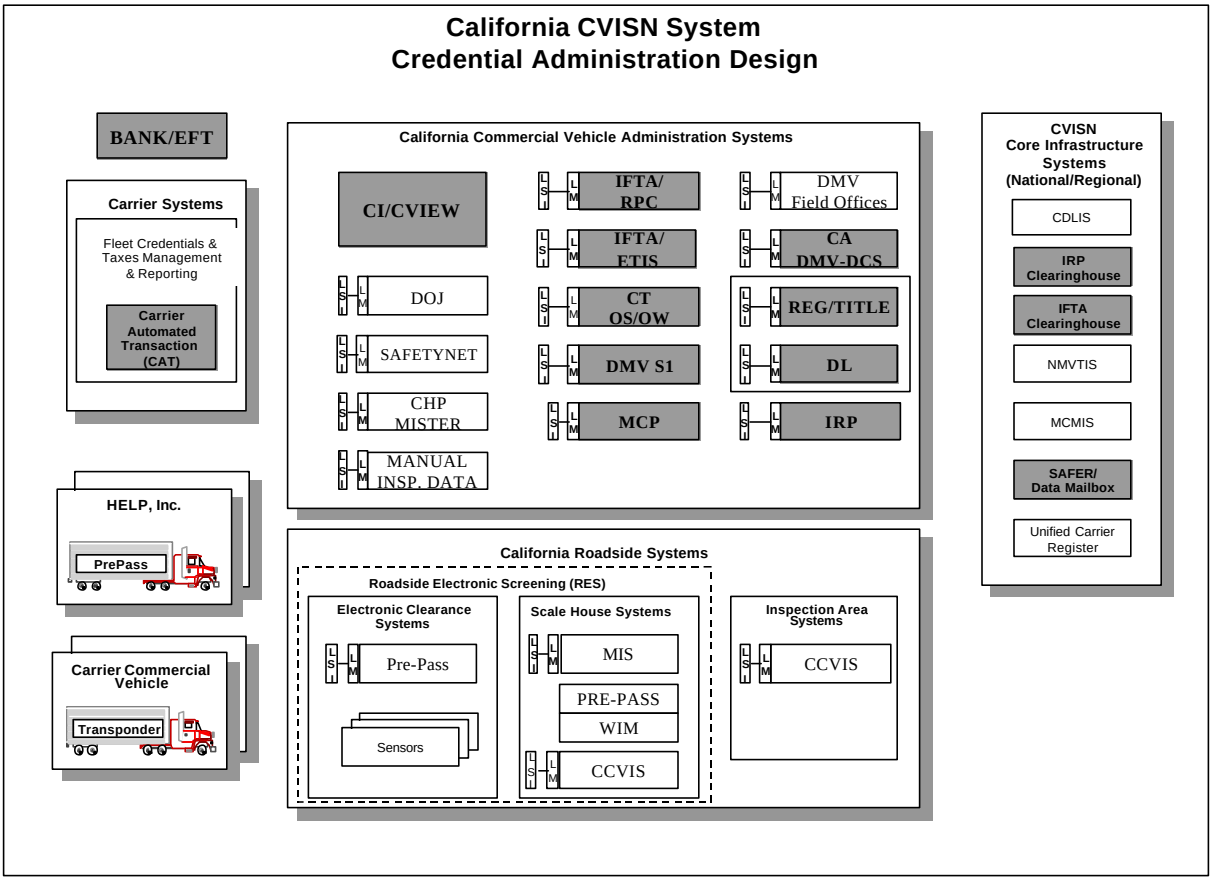

Figure D-1. CA CVISN System Design Template

Highlights of California Credential Administration modifications and planned or existing capabilities include:

- Develop a CAT requirement document. The CAT will provide capabilities for complete point of sale credential application processing for IRP, IFTA, OS/OW, SSRS, and then adding MCP and intrastate registration.
- Will determine the applicability of the CAT software for use in DMV field offices. Plan to use the Internet, using EDI transaction specifications, for communications between the carrier's CAT system and the state's CI system.
- Develop a CI/CVIEW requirement document. The CI will provide an interface among the carrier's CAT system, the state legacy systems in its native mode, the core infrastructure systems, and the connection and use of the public domain CVIEW software.
- Using the Regional Processing Center (RPC) to support IFTA functions.
- Using the Illinois Single State Registration System (SSRS) to support interstate insurance functions.

D.2 Colorado

(April 1999) Colorado has been maintaining a database of commercial vehicle credentials for many years. This process began in 1985 with the installation of computer systems in each port of entry location. Although we used extracts from various State credential legacy systems, and merged the data with tapes provided by major carriers operating in the state, we relied mostly on our field officers to populate and maintain our database. This meant that, at a minimum, a driver would have to come in at least once a year to produce proof of current credentials so that our expiration dates could be updated. Since credentials expire at different times during the year, drivers who frequently clear our ports could be called in multiple times.

With the advent of CVISN we are attempting to minimize the data entry effort for our officers. This will have a direct benefit for the drivers as well as for their corporate staff that insures they are properly credentialed. We are also integrating *more* data into our credential processes, such as SAFER information

Colorado has contracted with Intelligent Decision Technologies (IDT) Ltd. to provide us with a Web-based application system. This system will provide the carrier the ability to electronically apply for, and receive, credentials for IRP, IFTA, IFTA Quarterly tax returns, SSRS and Hazardous Material licenses. We intend to add additional credentials once we exhibit success with the initial offering, such as the Oversize and Overweight permits, USDOT application and Emissions Exemption waivers. The greater benefit here is to the carrier who will no longer need to deal in person with multiple agencies and multiple departments in order to obtain their operating authority.

We are also in the process of sending this data electronically to the roadside. The officers will no longer have to stop drivers and do a physical check of their credentials in order to update the

database. Since we can receive necessary data from different state and federal agencies, more information can be provided at the roadside in a quicker manner.

One problem with this attempt is how to link different data elements from different agencies to the same vehicle. In order to resolve this we are asking our officers to capture US DOT numbers whenever possible. Matching US DOT number to VIN numbers seems to be our best possible means of identifying a vehicle and tying their credential information to it.

In addition to our in-state efforts, Colorado will begin the process of connecting to the IRP and IFTA Clearinghouses and sharing our data nation-wide.

D.3 Connecticut

In Connecticut, three agencies are involved in credentials administration: DMV for vehicle registration, SSRS, title, and driver's licenses, DOT for Oversize/Overweight Permits, DRS for fuel taxes.

D.4 Kentucky

(April 1999) Figure D–2, a high-level system design template highlights those credentials administration functions targeted for inclusion in Kentucky's CVISN deployment strategy. Additional information relating to CVISN and CVO activities can be found at http://www.kytc.state.ky.us/motorcarrier/Motorcar.htm and http://acvo.uky.edu.

It should be noted that the ALTS Terminal located in Roadside Systems is part of an existing operation for verifying certain credentials; this operation will be retired once a certain level of CVISN functionality is achieved.

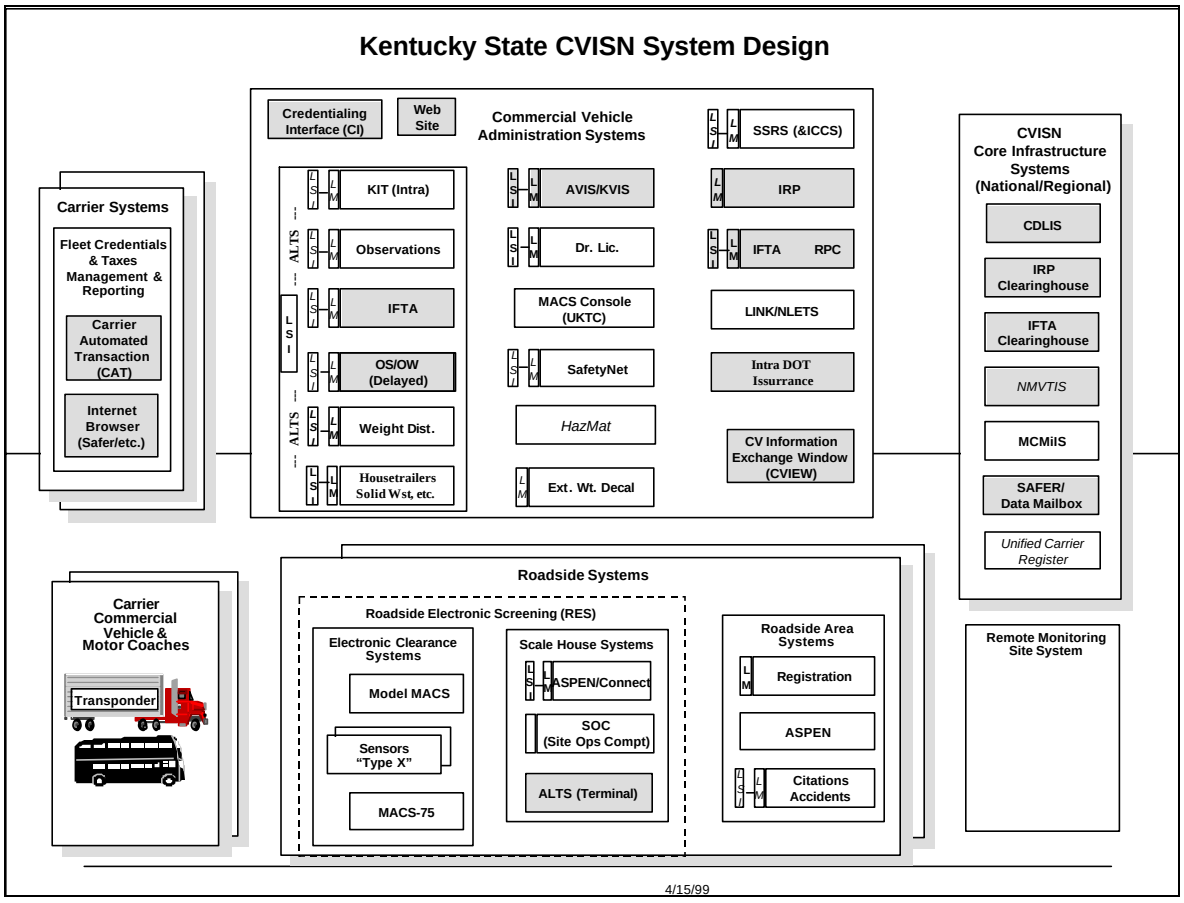

Figure D–2. KY CVISN System Design Template

Highlights of Kentucky's plans include:

- Implementing a credentialing interface (CI) to serve as the primary focal point for incoming and outgoing electronic credentialing activities with carriers.
- Preference of a commercial carrier automated transaction (CAT) package to assist in building and testing the various CI and CVISN systems and applications.
- Link existing credentialing system beginning with the IRP and IFTA followed by OS/OW.
- Working with a select and representative group of carriers to obtain carriers' perspectives and to foster communication.
- Installation of CAT functionality at regional public sites for access by the smaller carrier operations.
- Use of the Internet as the means of data communications
- Use of existing applications and systems containing the business rules where feasible.
- Connection to the CDLIS, IRP Clearinghouse, IFTA Clearinghouse, and NMVTIS.
  - Use of the public domain version (core modules) of CVIEW as the communication link to SAFER.

- Placing all CVO credentialing manuals and procedures on Web servers for access by carriers.
- Developing a Web interface containing basic credentialing functionality in addition to providing for commercial CAT and EDI interfaces
- Use of Regional Processing Center (RPC) to support IFTA functions.

D.5 Maryland

(April 1999) Figure D–3 shows Maryland's system design template, with the credentials administration-related functions highlighted. More information about the MD CVISN project can be found at http://www.mdot.state.md.us/mmcp/index.html. Information about the MD Business Licensing Information System can be found at http://www.blis.state.md.us/.

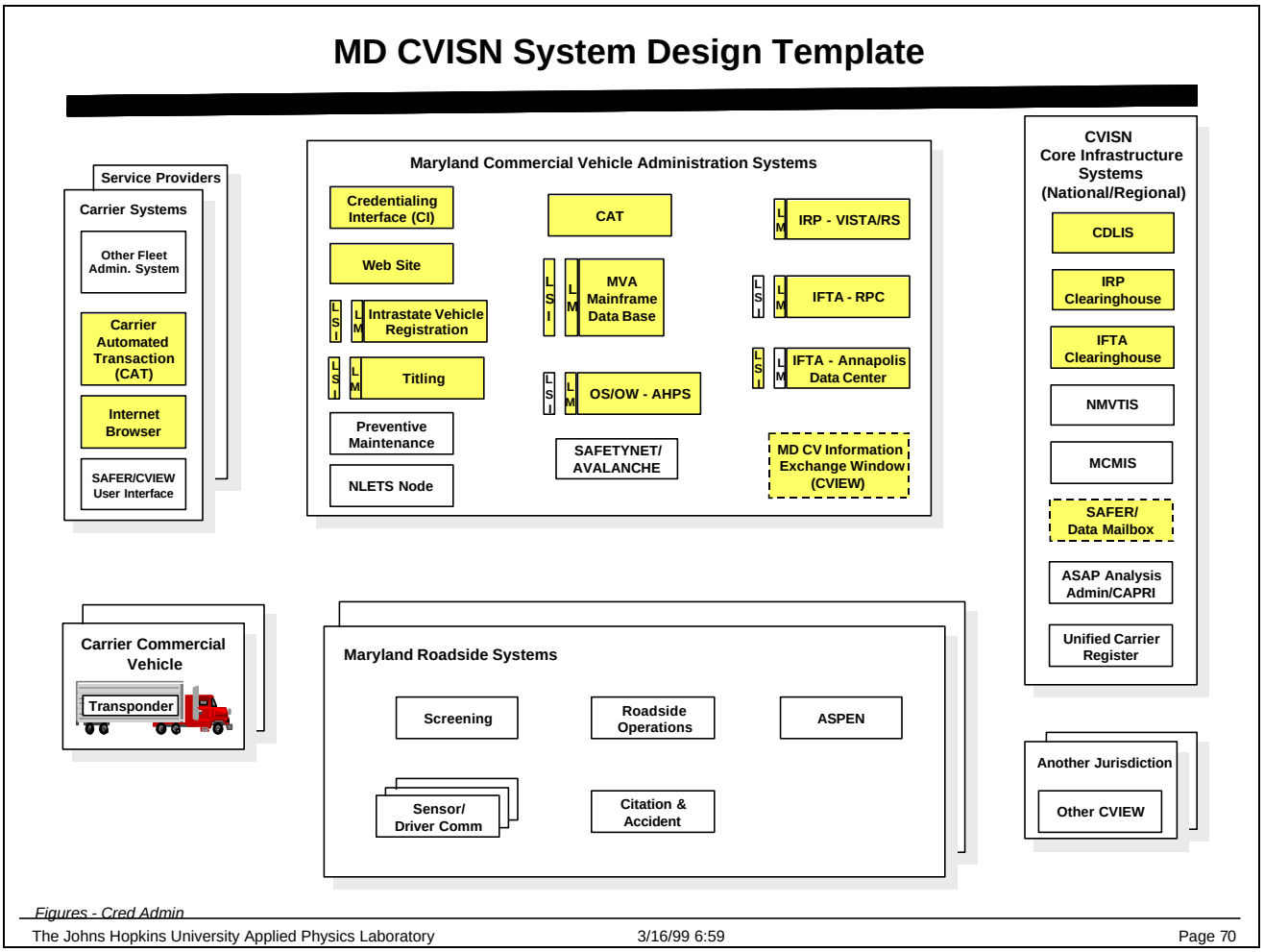

Figure D-3. MD CVISN System Design Template

Highlights of Maryland's credentials administration modifications and planned or existing capabilities MD include:

- implementing a CI and CAT, starting with IRP, then IFTA.
- also plan to implement electronic credentialing for titling, intrastate vehicle registration, and oversize/overweight permitting
- also installing the CAT at regional MVA offices, so that MD staff can use the product to enter information from paper applications received over the counter
- developing a WebCAT for IRP initially
- connected to the IRP and IFTA Clearinghouses as part of their pilots
- using the Regional Processing Center (RPC) to support IFTA functions
- using a commercial product for IRP functions
- put Motor Carrier Handbook on the MD DOT WWW page
- added 2 Servers to support the CI, state office CATs, and CVIEW, with plans for two more to support operational mode
- improved existing connectivity between VISTA/RS and MVA to support additional traffic associated with IRP; between MVA mainframe and MDOT networks for access to MVA Legacy Database; MDOT networks and MD Comptroller's networks for IFTA; MVA and weigh station facilities for carrier and vehicle snapshots; MDOT networks and the Internet (firewall upgrades, domain name services, etc.) for IRP, IFTA, intrastate, Web CAT.

D.6 Michigan

Figure D–4 provides a general schematic of the recommended CVISN architecture for the State of Michigan. The architecture encompasses 11 existing legacy systems and four new systems, and provides secure communications between agencies, with motor carriers, and with third parties such as national information systems, banks, and insurance companies. The implementation uses the state's existing Lansing communications network to link state agencies, and a mix of communications networks to introduce motor carriers and third parties. There is a central hub for all CVISN communications that incorporates the federal architecture concepts of the "Credentialing Interface" and the "CVIEW" data exchange window or "snapshot" database.

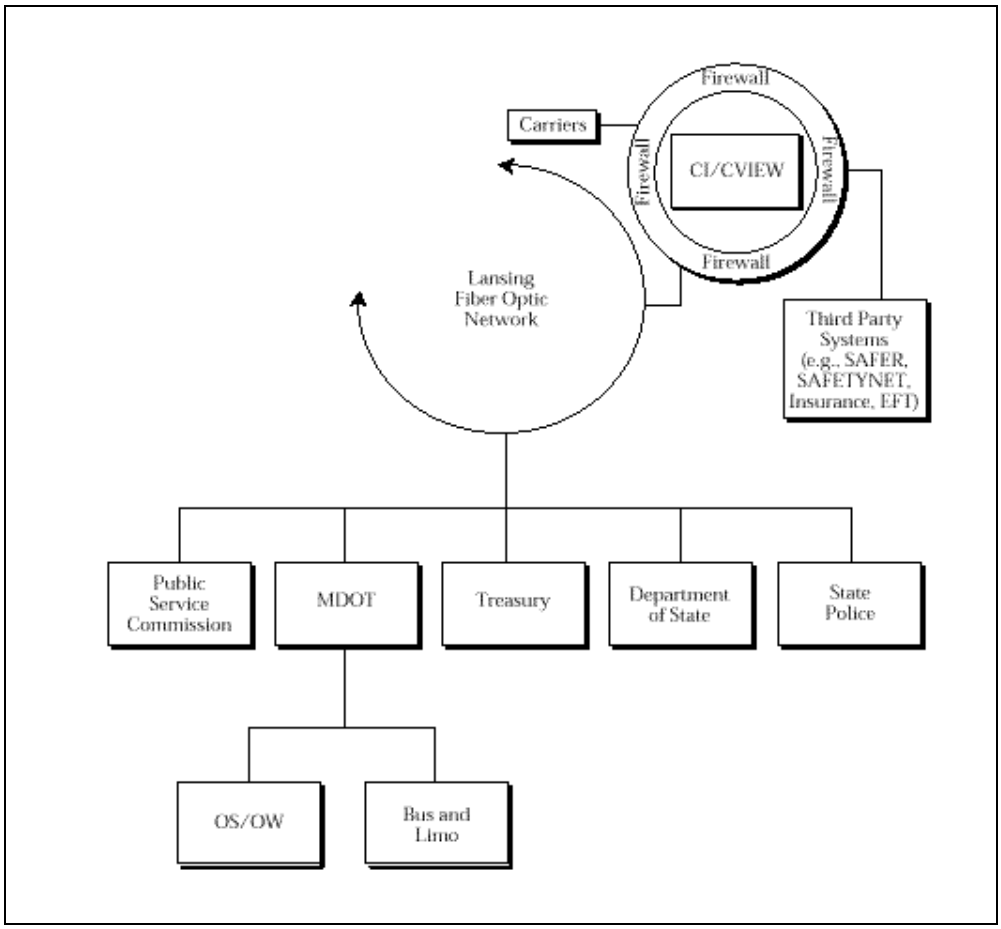

Figure D–4. MI General Schematic

From an agency perspective, there will need to be changes to existing legacy systems, both to accommodate the submission of credential requests by motor carriers and to be able to query the snapshot database for additional information not previously available. The general look and feel for the individual agency employee, however, will not drastically change – mainframe users will remain mainframe users, and PC users will remain PC users. Behind the scenes, a "Legacy System Interface" and a revamped security firewall will handle the interaction with the rest of CVISN.

Motor carriers will have the biggest set of new functionality. Participating motor carriers and their agents will be able to use computer software to submit and retrieve credential requests electronically using a dial-up approach called a "Virtual Private Network" (VPN) that is based on the Internet backbone. Since the CVISN network will be available nearly 24 hours per day as opposed to the regular, more restrictive business hours, this electronic capability will increase the level of service available to carriers.

The recommended system architecture for Michigan CVISN uses the core national standards for a CVISN architecture as a starting point, then customizes the national architecture to fit the specific situation found in Michigan. The customization process used interviews with agency staff about existing systems, and desired CVISN process and system requirements. The process then reviewed the state of the practice in over 20 different systems and business process areas, and recommended the best approaches for Michigan CVISN.

The customization process followed a series of design goals with respect to the agencies involved:

- Adherence to the functionality of the national CVISN architecture;
- Availability of the ANSI X12 Electronic Data Interchange Standard when connecting to external systems as required by the national architecture;
- Minimal intrusion on existing legacy systems;
- Minimal changes to the agency processes used to handle paper-based carrier credential submissions, which still will take place;
- Usage of existing infrastructure whenever possible;
- A modular design that allows for individual components to fail without shutting down the entire system;
- A single point of connectivity between each agency (the firewall) and the rest of CVISN (the CI/CVIEW); and
- A generic approach to processes and systems that is suitable for all agencies.

The last point is critical from a design and maintenance standpoint. While each agency has its own unique systems and processes, it is necessary to consider a generic "agency-blind" approach in designing the overall architecture. The alternative would consume significantly more resources in the implementation phase of physical and detailed system design.

Figure D–5 provides an overview of the architecture from the perspective of a generic Michigan agency. Each agency has between one and four deskside systems. These systems are used either for credential management, or for the manipulation of inspection and compliance information. These systems currently exist at each agency; no new legacy systems are proposed. A legacy system interface (LSI) will be built to facilitate transactions between systems. Conceptually, we have drawn a different LSI for each legacy system, but the actual implementation approach will be left to the discretion of each agency.

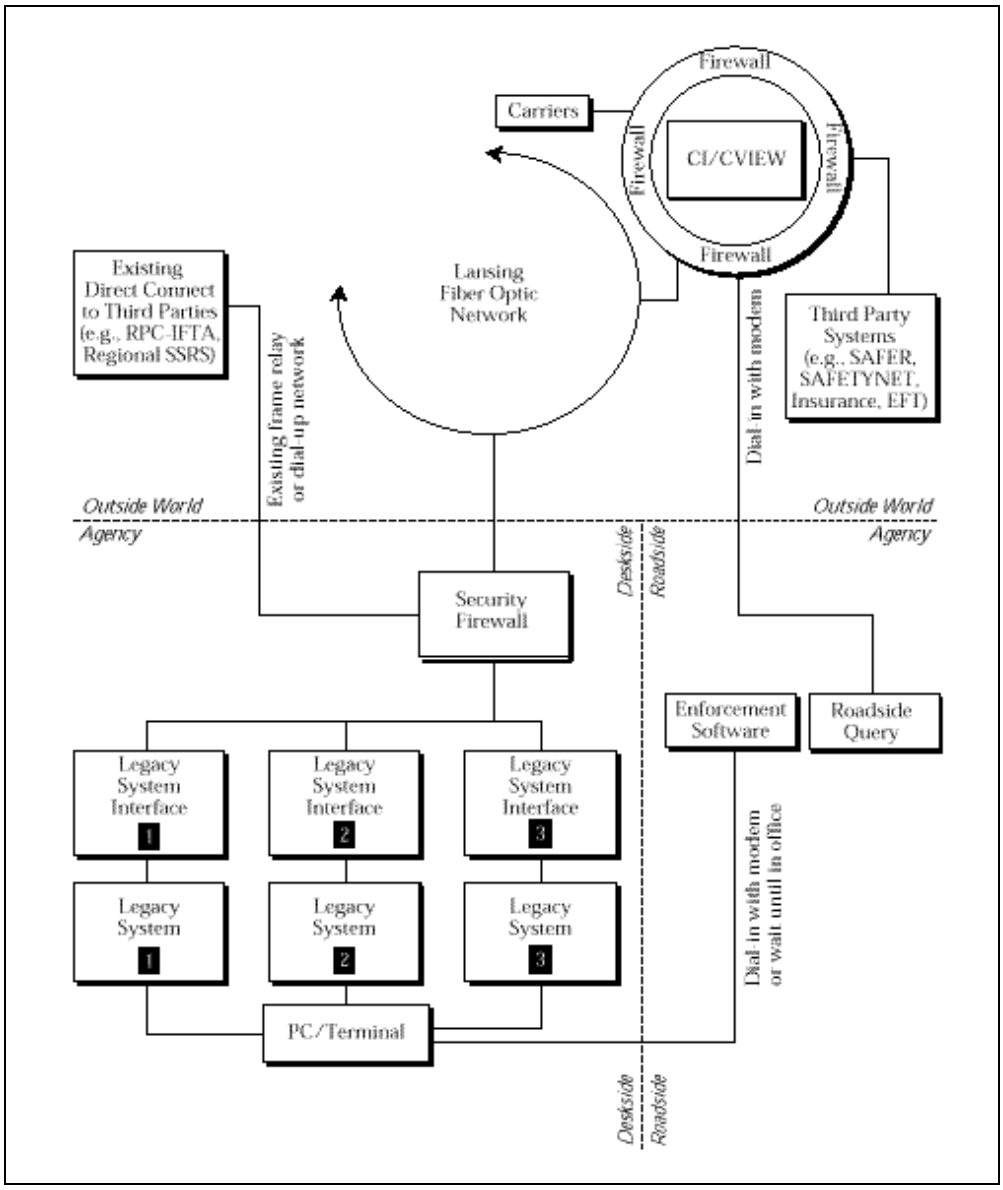

Figure D–5. MI Architecture from Agency Perspective

Participating motor carriers will submit their credential requests through the Carrier Automated Transaction (CAT) software. The CAT software will connect to the CI/CVIEW, which will gather carrier requests for each legacy system. For some transactions, the CI/CVIEW may augment the request with additional data from the carrier or vehicle snapshot. The agency's LSI then will connect to the CI/CVIEW, will download the requests, and will manage the data transfer and storage into the legacy system. Once credential requests have been processed, electronic notification will be sent back to the carrier.

The process is the exact reverse for the carrier notification and snapshot update process. The legacy system will provide data to the LSI about the credential and its resolution. The LSI will build the appropriate message for the carrier, as well as any changes to the carrier or vehicle snapshot. On a periodic basis, the LSI will connect to the CI/CVIEW, and will transfer the information. The submission will be kept at the CI/CVIEW until the carrier's next connection.

Paper-based credential submissions generally include a check for payment. With electronic submissions through CVISN, an alternate method is needed. Therefore, the CVISN architecture will support electronic payments through three different payment types (bank debit, credit card, and third party managed escrow) on a nightly basis. Each LSI will be responsible for managing payment request information at a per-credential basis. The CI/CVIEW will gather payment requests for all carriers, and will forward them to the appropriate institution for payment.
The intention of the recommended CVISN architecture is to minimize the number and scope of changes to agencies' existing legacy systems. Unfortunately, some modifications will be necessary for most systems to handle the new functionality provided by CVISN. Most modifications involve the carrier submission of credential requests that are "waiting for approval" into the legacy system databases.

D.7 Minnesota

(April 1999) Figure D-6 summarizes the system interactions in Minnesota's credentials administration design.

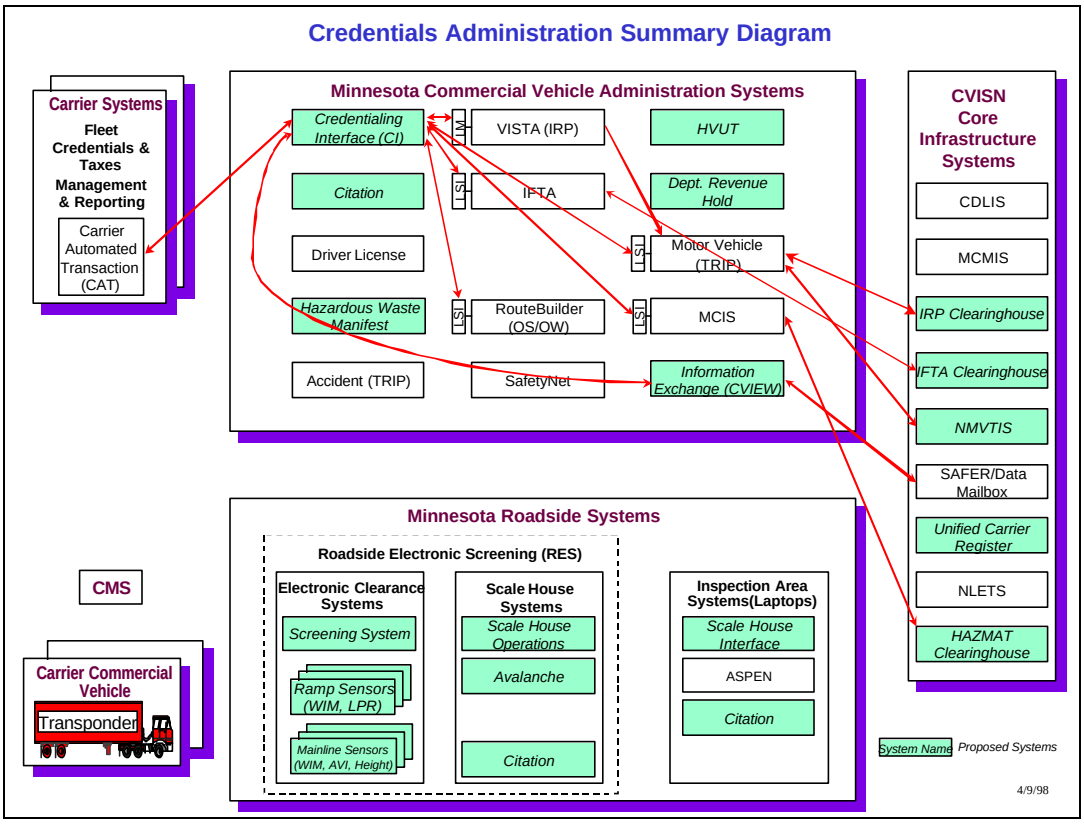

Figure D–6. MN Credentials Administration Summary

Highlights of Minnesota's credentials administration include:

- Implementing a CAT system with capabilities for IFTA, interstate operating authority (SSRS), and intrastate vehicle registration in the first release in April, 2000. Release 2 in December, 2000 will add IRP, OS/OW, and Uniform Hazardous Materials Permit functionality.
- Developing a customized, combined CVIEW and CI systems on the same installation.
- Designing a generic LSI structure to reduce redundancy and future maintenance costs.

D.8 Oregon

No information was available from Oregon at the time of publication of this document.

D.9 Virginia

Figure D-7 shows Virginia's Top Level Data Flow for Credentials Administration.

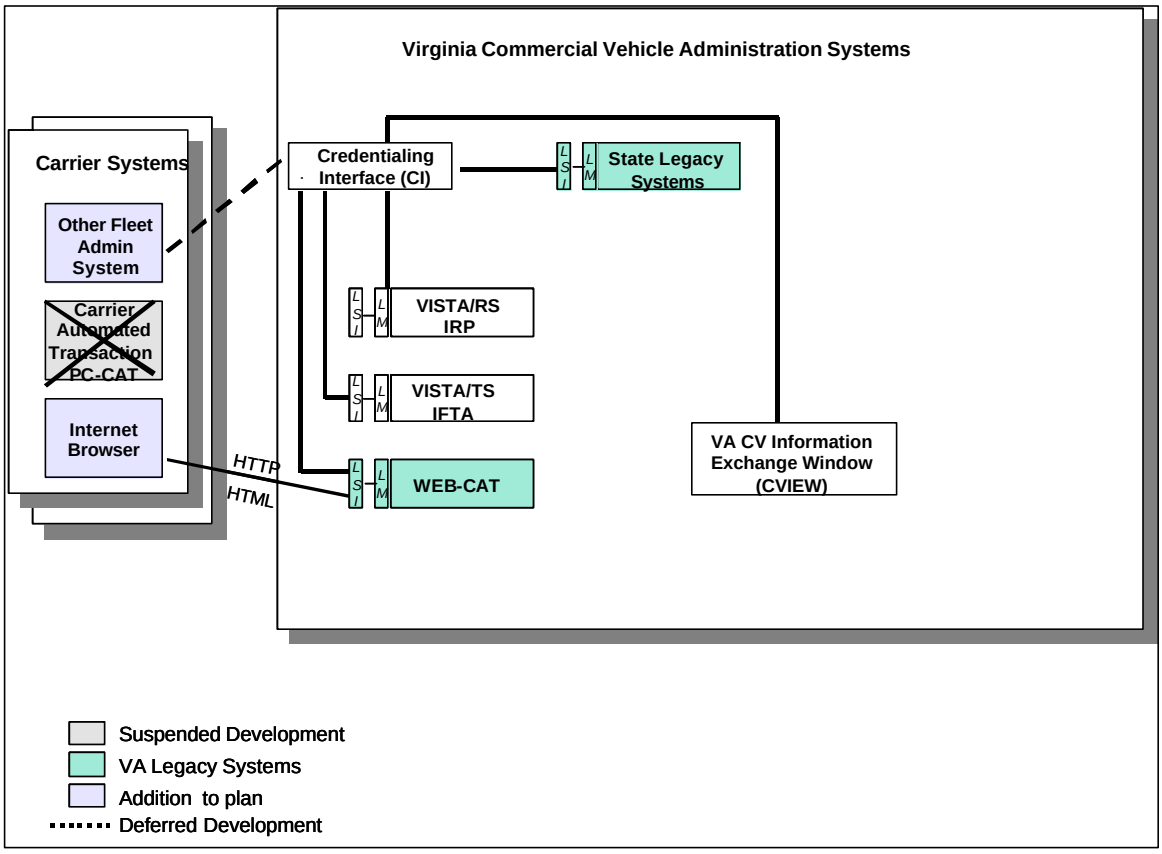

Figure D–7. VA System Design Template

Highlights of Virginia's Credentials Administration current and planned capabilities include:

- Deployed PC-CAT in five Carrier's offices. Conducted technical assessment and evaluated carrier feedback during limited operations period. Abandoned PC-CAT efforts in favor of internet web based solution.
- Installed and evaluated Kentucky version of Credential Interface (CI). Documented Virginia specific delta requirements for IRP.
- Developed legacy modifications to Intrastate Operating Authority and Titles and Registration systems for interface with CI. Will reevaluate these modifications when

Virginia moves forward with integrating Intrastate Operating Authority, titling and intrastate registration into their web based solution.

- Contracted with new vendor to assist DMV in the development of the webCAT (internet web based solution). webCAT business requirements completed and are continually being updated. Developed a project management web site.
- Participated in IRP Clearinghouse pilot; automated interface is operational. IRP Clearinghouse in production with 15 jurisdictions.
- IFTA Clearinghouse pilot jurisdiction. EDI interface for demographic data and transmittal data is operational. Anticipate moving into production mode before the end of calendar year 2000.
- Reached agreement with FHWA to pursue web solution utilizing flat files.
- Deployed web front-end to DMV production web server at https://www.dmv.state.va.us/webcat
- Level I functionality has been developed plus interfaces to Virginia legacy and payment systems. Further capability to be developed.
- WebCAT should be fully operational and in production for IRP, IFTA and Virginia Motor Fuel Road Tax during the summer of 2000. Transaction services that will be available include:

IRP

1. Add vehicle
2. Add jurisdiction
3. Delete vehicle
4. Transfer plate
5. Transfer and exchange plate
6. Change vehicle unit number
7. Replace credential
8. Increase weight
9. Address change
10. Renewal notices
11. Renewal
12. Add fleet
13. Convert Virginia plate to IRP plate
14. Pay invoice

IFTA/Virginia Motor Fuel Road Tax

1. Tax return filing
2. Miscellaneous tax payment
3. Additional decal order
4. Renewal notices
5. Renewals

General webCAT System Features and Capabilities

1. Secure environment (user ID and password protection)
2. On-line user registration
3. Storage of account, fleet, and vehicle data
4. Database management to ensure webCAT and legacy system databases are synchronized
5. Transaction manager which organizes transactions into three categories: (a) saved but not submitted, (b) submitted, (c) historical
6. Business rule edits
7. On-line help
8. Credit card, ACH debit and ACH credit payment options
9. Options to receive credentials through mail, pick them up at any DMV Customer Service Center, or self issue credentials
10. Validations to ensure vehicles are titled in Virginia prior to registration
11. Validations to ensure compliance with Heavy Vehicle Use Tax (HVUT)
12. System checks to ensure credentials are not issued if stops or suspensions are on file

- Virginia will begin to develop additional webCAT services later in 2000 to include titling, Intrastate Operating Authority and Single State Registration. Later in 2001 it is anticipated that webCAT services will include electronic notification of overweight violations and the option to pay for such violations through webCAT.

D.10 Washington

Figures D–8 and D–9 show Washington's system design template.

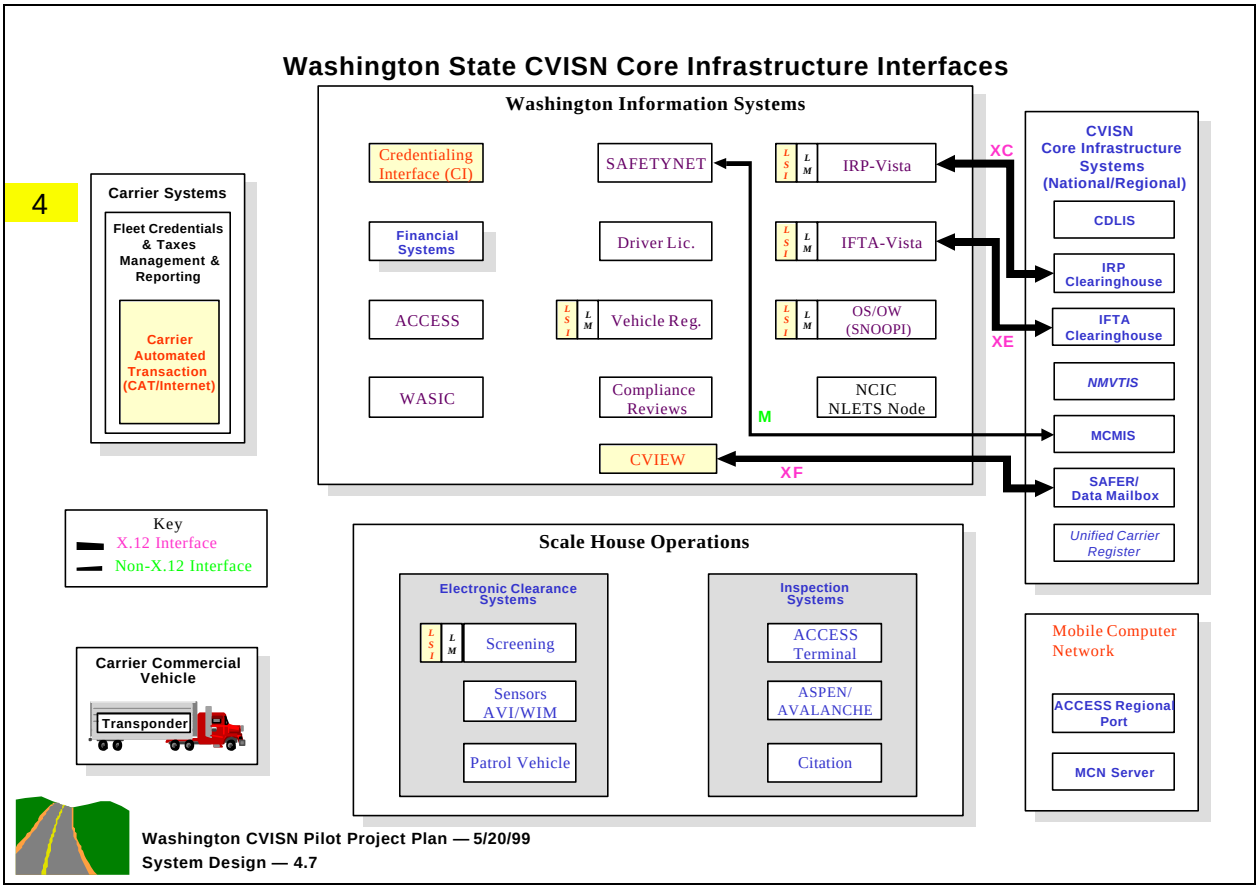

Figure D–8. WA CVISN System Design Template

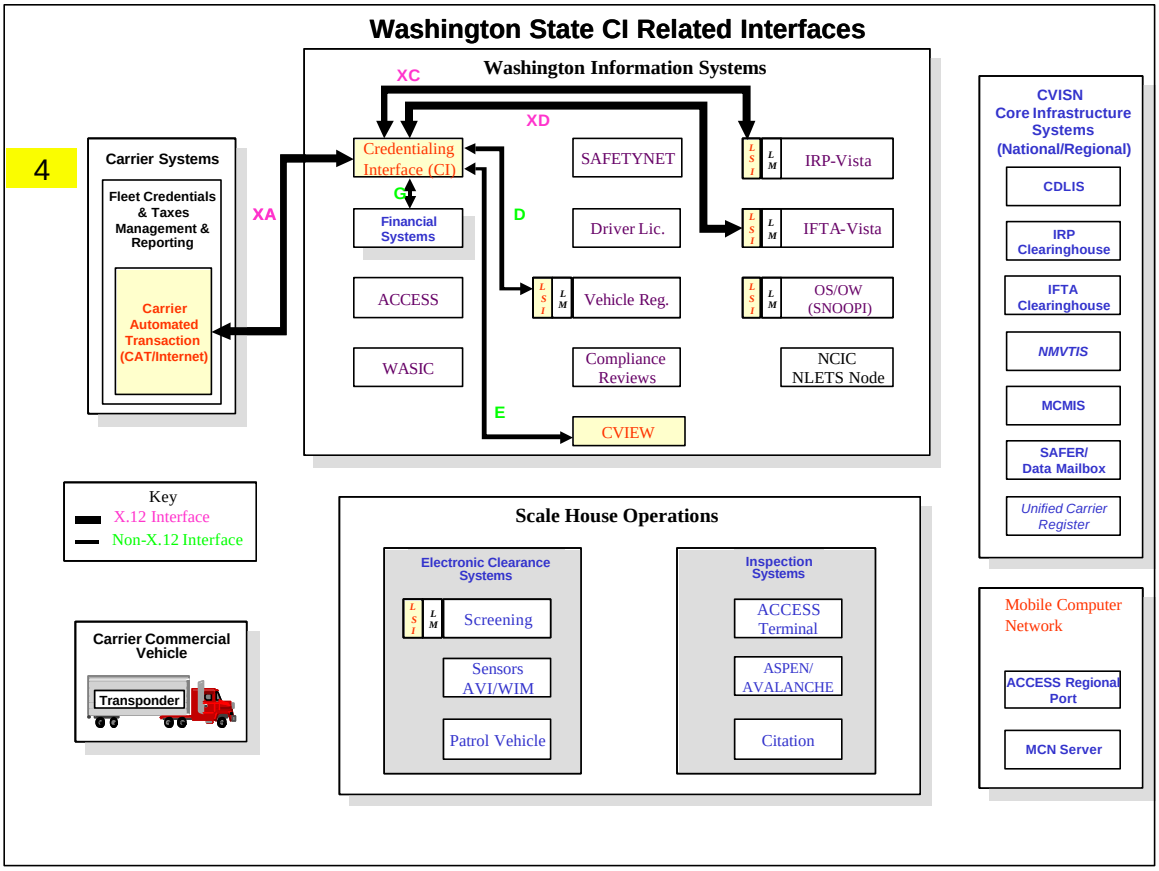

Figure D–9. WA CI Related Interfaces

Washington used:
Microsoft NT Server
Windows Based Applications
in VB6 and C++6
MS SQL Database

More information about the WA CVISN project can be found at ftp.CVISN.WSDOT.WA.Gov

Please note: this is a secured site and you will need a user id and password for access. Call Anne Cline, CVISN Project Coordinator, at (360) 705-7341 for a user id and password.

Highlights of Washington's credentials administration modifications and planned or existing capabilities:

- Lockheed Martin was the selected vendor for developing the Credentialing Interface
- Current IRP and IFTA data (from Lockheed) has been loaded onto the Screening Database at WSDOT headquarters
- Received current IRP data from Oregon, extracted the Washington specific data and loaded onto the Screening Database at WSDOT headquarters
- In the process of obtaining Washington vehicle registration information (flat file via ftp)
- Developed Oversize/Overweight permitting program with SNOOPI
- Developed Web site for use by the Transponder Administrator
- Established pre-clearance and enrollment vehicle criteria

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